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Keywords: Rozvi; IKS; Climate change; Mountains; Disaster solutions

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Review Article

Indigenous Environmental Resilience: Decoding Ancient Rozvi Wisdom on Mountain Ecosystems as Disaster Management Solutions

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Abstract

Since time immemorial, Indigenous communities have always perceived the landscape as a complex web of living, physical, and spiritual things. These communities have always relied on their Indigenous knowledge systems (IKS), emphasizing ancestral burial grounds, mountains, caves, rivers, pools, forests, monuments, and other cultural diacritics as symbols of place identity. In addition, myriad metaphors like taboos, legends, tales, folklore, myths, proverbs, stories, and practices, also constituted an integral part of Indigenous cultural and nature connections. This heritage was constantly imagined and configured to cement human-nature relations. However, the advent of colonialism severely violated this status quo, thereby causing deep environmental, political, and social crises. Through imposing a hegemonic scientific paradigm, knowledge compartmentalization, and capitalist aggrandizing practices, the original harmonious human-nature praxis premised on IKS was disrupted. To this day, the exclusionary colonial legacy and poisoned 'sense of place' remains our greatest threat to climate and environmental stability. Thus, this paper advocates for the recentralization of IKS as a valid way of knowing with already inbuilt human and natural disaster management solutions. By pivoting Rozvi narratives premised on five mountains, namely; Manyanga in Bubi district, Mavangwe, MunwewaMwari and Bepe in Buhera district, and Mutikwiri in Maungwe near Rusape town, all situated in former Butua/Guruuswa regions of Zimbabwe as case studies, the power of ancient wisdom as a holistic epistemic approach towards sustainable human-nature relations is explicated.

Introduction

The rising global temperatures, warming oceans, melting northern Hemisphere snow cover, decreasing sea ice cover, rising seawater and ocean acidification levels, and myriad extreme weather conditions all attest to dramatic climate change patterns [1,2]. Implicitly, these environmental shifts negatively affect farming and hunting patterns, food and water availability, forest conservation, animal habitats and biodiversity, infrastructure development, human health, and life itself. Regrettably, the worst affected lives and livelihoods are those of the poor and marginalized communities with limited human and natural disaster response capacities. Against this background, calls for concerted global action to counter climate change have been amplified, though the colonial legacy remains our biggest stumbling block [1,3,4]. Nonetheless, global discourses on climate change are crystalizing into two epistemological dichotomies, which, though different, weld great potential if integrated. Respectively, on one extreme end, is the futuristic Western 'modern' scientific and technological approach premised on strict statistical or numerical measurements, observations, and monitoring systems of the global environment [3-5]. On the other hand, Indigenous narratives are yearning to return to a pre-modern past as a strategy to enhance community self-determination against local climate change [5,6]. While the

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former epistemology places great emphasis on facts, objectivity, place-less-ness, and universality, the latter downplays a focus on facts in favor of a comprehensive appreciation of local languages, beliefs, meanings, values, and geographical contexts [4,7,8].

More so, while the scientific approach pays particular attention to the physical environmental realities for predictive modeling purposes, IKS tends to prioritize both the visible and invisible aspects of society and nature. Hence, this implies that IKS is premised on a conscious awareness of past, present, and future realities. Instead of respectfully engaging with both epistemological paradigms in attempts to find lasting solutions to climate change and associated impacts, scientists and policy-makers have tended to privilege their own worldview to their detriment [5]. IKS are not necessarily 'alternative knowledge' but critical knowledge at par with the Western academy, whose resilience transcends generations of balanced human-nature relations. Since traditional knowledge systems are naturally tied to the natural environment, they are already positively disposed towards ensuring human resilience mechanisms [2,6]. If truth be told, climate change and its associated impacts have largely been aggravated by the spread of colonial ideologies and capitalism, not Indigenous communities [7]. To make matters worse, Indigenous communities that have had very little to do with this rapid environmental damage continue to face marginalization at global climate change forums [1,9]. This regrettable state of affairs can only be meaningfully redressed by closely engaging with Indigenous people and focusing on understanding IKS as an equally valid community archive with immense potential to slow down climate change and reduce its impacts [2]. This paper attempts to do just that by adopting a decolonial paradigm towards revitalizing Indigenous knowledge for local community and global environmental benefit.

Therefore, the scheduled discussion begins by critically exploring the numerous biases inherent in the colonial library about Indigenous philosophies and worldviews. Colonial research and education were not only rude to Indigenous communities but disruptive, misinformed, and worthless to their socio-cultural practices and development [10-12]. Smith [12] further argues that from an Indigenous perspective, the word 'research' remains one of the dirtiest terms in their vocabulary. Under this colonial hegemonic framework, the scientist often behaved like a 'spectator' who observed, interviewed, and described Indigenous people with total disregard for their cultural meanings and values [3,13]. Often, these scientists imposed their own preconceived imaginations that contradicted Indigenous reality. Such colonial mischief towards IKS deserves outright condemnation, especially considering that Indigenous people had always relied on their knowledge systems for millennia to feed themselves and live in perfect harmony with nature [9]. With special reference to Rozvi narratives woven around their ancestral Butua/Guruuswa regions (Figure 1), five mountains including Manyanga in Bubi district, Mavangwe, MunwewaMwari and Bepe in Buhera district, and Mutikwiri in Maungwe near Rusape town, Zimbabwe; the power of ancient wisdom in maintaining human-nature relations is explored. Rozvi narratives are critiqued as parallel scientific tools that variably described, monitored, and documented the environment, and also regulated community behavior to safeguard the climate and avoid both human and natural disasters.

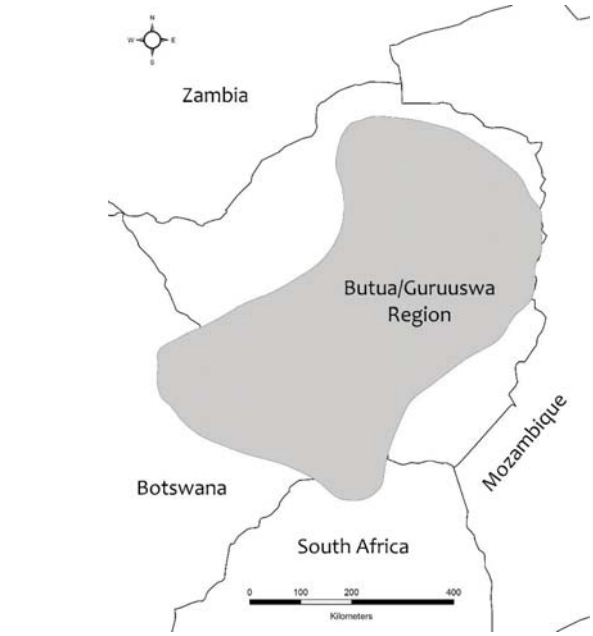

Figure 1: Butua/Guruuswa regions are cited in narratives as Rozvi ancestral lands.

Colonial violence, geography and climate change

Before the advent of colonialism, the relationship between humankind and nature was in equilibrium. The secret behind this environmental stability lay in the original state of IKS. By advocating for sustained interconnectedness and balance between all aspects of life and creation, this knowledge ensured the endurance of community ties to the land, biodiversity, and cosmology. Such knowledge also guaranteed a sustainable vibrant relationship between people, their ecosystems, 'other beings', and spirits sharing the same lands [11,14]. As Cameron, et al. [7] elaborate, among Indigenous communities, the earth is always alive, imbued with spirit, and it forever remains a special borrowed gift from future generations. Owing to this intergenerational mentality and deep sense of environmental responsibility, about 370 million Indigenous people occupying 24% of the global land account for 80% of the world's biodiversity [9]. In view of this reality, it now suffices to also affirm that colonialism and capitalism deserve full condemnation as lead causes for climate change [2,4,6-8]. Indeed, colonialism severely disrupted Indigenous people's sense of identity, spirituality, and resilience premised on intimate nature, culture, and ecosystem interactions. Furthermore, in attempts to claim space and create 'new places' from usurped territories, imperial and colonial agents often blatantly denied, ignored, and erased all forms of Indigenous knowing and pre-existence [12].

Until today, the agents of colonialism stand accused of manufacturing enduring falsehoods like Indigenous people lacked landscape knowledge, memory, and connection. Thus, they dismissed and ignored Indigenous people's history as mere gossip [12,15-17]. More so, the historically colonized and marginalized were forced to reject their own culture and heritage in order to fully embrace Euro-western worldviews. In this respect, the colonial administration and its associates manipulated systems of education to condemn everything Indigenous while simultaneously reifying their own culture. This way, academia was weaponized

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to institutionalize, legitimize, and disseminate the hegemonic ideologies of colonialists [18]. As a common practice, Indigenous cultures were defined as inferior, backward, and barbaric, while their knowledge systems were compartmentalized and treated as unscientific, illogical, anti-developmental and ungodly [11,19] No doubt, the collective memory of imperialism sought to present Indigenous forms of knowing as localized, traditional, peasant, folk, irrational, backward, and obsolete knowledge [10,12,20]. Respectively, colonial forces not only succeeded in separating Indigenous people from each other but also in disconnecting them from their culture and nature relations, factors, which gradually degenerated into a deep environmental crisis. Of late, many are beginning to realize and accept the view that one of the greatest colonial atrocities that continues to haunt us is the separation of culture from nature.

Closely aligned to these colonial shenanigans was the entrenchment of superficial Western 'superiority' complexes through the development and usage of dubious classification systems, binary oppositions, and hierarchical ordering of knowledge systems [12,16,21]. Several scholars remain trapped in these colonial constructions and struggle to find a possible way out [5]. For instance, Shizha [10,11] informs us that all knowledge systems are scientific and started as Indigenous, but the dominant forces reified their own as more scientifically sophisticated. ☐Although academic discipline boundaries are good, sometimes they create unnecessary knowledge compartments and barriers that scholars and the public often struggle to navigate and reconcile. It, therefore, goes without saying that the Western academy remains elitist and way out of reach for the majority of Indigenous communities. Watson and Huntington [5] further hazards that the constant contrast of Western science with Indigenous knowledge is problematic because it perpetuates epistemic violence. For generations, these knowledge systems have had much in common through mutual knowledge exchange, but those who consider themselves intellectually superior barely acknowledge this reality [5,18,22,23]. On the flip side, the perceived 'great divide' between these knowledge systems continues to hinder research progress on climate change [3]. However, these artificial knowledge distinctions are best conceptualized as mere fallacies aimed at silencing the voices of Indigenous communities.

Colonialism has also been condemned for creating an environmental crisis through forced removals of people, separating them from each other, and their relations to culture and the natural world [7]. Yi [24] further states that colonialism exiled Indigenous people from their landscapes and radically transformed those spaces to nullify all forms of past imaginations. This was quite unfortunate because it disrupted Indigenous knowledge, which formed the basis of a holistic environmental conservation strategy and sustainable use of resources. A point that Relph [25] echoes by stipulating that pre-modern places had always rested in fine balance with nature because of Indigenous people's strong 'sense of place'. This sense of place extols whatever is 'old', or 'traditional' and decries anything 'new' [25]. Regrettably, the geographic violence of imperialism introduced a new worldview and values that severely undermined the already tried and tested Indigenous geographical identity [6,17,24]. Furthermore, the inception of a new worldview meant the beginning of radical shifts in traditional ways of viewing ecosystems [6]. Even today, the colonial legacy continues to threaten the environment through extensive forest fires and clearances for commercial purposes, mineral exploitation, industrial production, and the alteration of hydrological cycles, among other challenges [2,4,7]. The dramatic impact of these factors on the environment continues to worsen, so humanity needs to respond urgently by imagining creative solutions. In line with this goal, this paper adopts a decolonial Indigenizing epistemological and methodological approach that centralizes narratives as the most powerful environmental management and protection tools.

Restoring the broken threads: An indigenous decolonial paradigm

As part of dispossessing Indigenous people, claiming their land, and assimilating them, imperialists launched a barrage of attacks on their backbone of survivance, namely knowledge systems [8,12]. Although colonial scholars largely misunderstood IKS, they still had the power to entrench epistemic violence against what they poorly knew [5]. In particular, these academics and many others alike assumed that Indigenous narratives literally communicated 'facts' about the physical world, yet they metaphorically expressed 'values and beliefs' through local languages [1,3,5,15]. Hershey, et al. [23] further add that the Indigenous body of knowledge is complex because it contrasts with the Western body of knowledge about what counts as reality, reliability, and results. For instance, Indigenous and Western ideas about space and time are contradictory. The former views these as relational and dynamic, meaning, narratives can be flattened, wrung out, and simplified [23,26]. In contrast, Western thought adopts a linear view of space and time, meaning these can be well-defined, organized, and fixed [12,15,23]. Perhaps the general failure to reconcile the two knowledge bodies owing to these fundamental differences resulted in the misplaced criticism of narratives as senseless, nativist discourse, naïve, contradictory, and illogical [11,12,19]. Against this background, narratives as part of IKS continue to be misjudged as meaningless and useless, a gross error that needs urgent redressing.

The quest to resist, reverse, reclaim, restore, and develop the once marginalized epistemologies and ontologies has crystalized under the banner of decolonization [14,18,20,22]. Hence, decolonization is a process of doing research in a manner that is respectful, sensitive, and highly beneficial to the Indigenous communities that have suffered prolonged colonial abuse, neglect, and oppression. Theoretically, such kinds of protest studies fall within what has been variably termed post-colonial, anti-colonial, post-modernist, deconstructionist research practices and Afrocentricity [14,26]. Under these emerging theoretical and methodological parameters, Indigenous knowledge is made central to knowledge production processes. Through such processes, our appreciation of what constitutes Indigenous knowledge and its associated nature and values has increased. In this respect, the word Indigenous means natural generational ties and a strong sense of identity within geographical localities [10,14]. As past generations interacted with their local environments, they gradually gained valuable environmental experience and information, which they, in turn, used daily, creatively packaged for every community member, and

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later passed on to future generations as cultural heritage. Thus, IKS can be broadly defined as intergenerational native ideas, beliefs, and practices relating to all aspects of life that are generally derived from a specific environmental context and passed on to others in various modes as cultural heritage [10,11,14,19].

An Indigenous worldview naturally promotes a community's self-determination and generational bond with surrounding environments [7,18,22]. In this respect, discourses of self-determination, sense of place, traditional ecological knowledge, and peoplehood all emphasize that colonial atrocities perpetuated against Indigenous people and their relations to nature can only be reversed by renewing or revitalizing Indigenous cultural ties to the land [1,4,7,8]. This follows the general realization that an Indigenous worldview is very good at melding history with geography and conflating place with group identity. Therefore, this knowledge system is rapidly reclaiming space within the Western academy as a decolonizing methodology, which empowers Indigenous communities to understand themselves through their assumptions and perspectives [18,22,26]. Along with such trends, Indigenous narratives, stories, naming patterns, poetry, music, art, dance, myths, tales, folklore, proverbs, taboos, idioms, legends, and cultural practices, among other modes of communication, are rapidly regaining space in research processes [19,23,24,27-29]. This is not merely coincidental or political, rather this follows the realization that narratives provide a deep insight into the intimate relationship and meaning(s) between humanity and nature [16,27,29]. Relph [30] neatly captures all this as follows:

> *Each place is a territory of significance, distinguished from larger or smaller areas by its name, its particular environmental qualities, the stories and shared memories connected to it, and the intensity of meanings people give to or derive from it.*

Thus, contrary to colonial writings, IKS is neither fossilized in time nor static. Instead, they are very dynamic owing to internal and external knowledge influencing adaptational needs and the constant quest to resolve pressing community problems [10,31]. Most importantly, IKS is holistic because it acknowledges the interconnectedness of all living things, which range from person to person, humanity to nature, 'other beings' or the spirit world, and the broader universe [14,19,20]. As such, IKS constitutes a unique brand of flexible, fluid, and adaptive intergenerational wisdom that is constantly evolving through sustaining crucial relationships with the land and local people's histories [6]. Furthermore, Indigenous knowledge naturally promotes intergenerational thinking, ethics and values that keep the entire community fully engaged in caring for and protecting nature as an extension of their own identities [7]. The other key principle of relationality and stewardship is creatively embedded in narratives about 'living things' and spirituality, which cultivates a crucial sense of accountability and responsibility among the living to forgone ancestral spirits and future generations [6,7]. Palone [28] further echoes the power of Indigenous culture in environmental care and management in the following manner:

> *What we understand or believe about our environment has very real impacts on our use of resources and our valuation of functional ecological systems and ecosystem services.*

Given the views proffered, thus far, it is quite apparent that IKS constitutes the very heart of Indigenous people's lives and livelihoods, belief systems, and values as summed up in Table 1 below. The following section zeroes in on selected Rozvi narratives tied to five mountain ecosystems to illustrate ancient wisdom's power in ensuring sustainable human-nature relations.

Rozvi narratives, mountain ecosystems, and ancient wisdom

This section focuses explicitly on the Rozvi 1685-1830 a dynamic historical formation that dramatically rose to prominence in north-eastern Zimbabwe around the Mutapa state 1450-1900 before migrating south-westwards of the Zimbabwean plateau (Figure 2) to conquer the Torwa state 1400-1644 [32]. Although their political power was relatively short-lived, owing to Nguni's incessant attacks suffered between the 1820s and 1866, Rozvi identities had already been inscribed across extensive landscapes, which makes their past quite intriguing. The Rozvi past is revisited to illustrate the intimate relations between people, language, history, culture, and nature. By exploiting historical and cultural practices, the Rozvi systematically imbued their imagined identities on the land, thereby transforming it into a 'metaphorical historical textbook'. In particular, the land was gradually transformed into Rozvi landscapes through the creative manipulation of language,

Table 1: Indigenous Knowledge Systems (IKS) as part of Ancient Rozvi wisdom.

Advantages	Promote a community's self-determination and generational bond with the environment.
	Empower Indigenous people to understand local environments and themselves through their own assumptions and perspectives.
	Provide a deep insight into the intimate relationship and meaning(s) between humanity and nature.
	Promote Indigenous people's sense of place, identity, spirituality and resilience.
	Meld history with geography and conflate people with place identity.
	Provide a holistic environmental conservation strategy and sustainable use of local resources.
	Dynamic, adaptable, relevant, and valuable generationally acquired environmental knowledge and experience.
	Simplified, palatable, and creatively packaged knowledge that is accessible and useful to every community member on a daily basis.
	Specific or contextual environmental knowledge that exists in various modes as cultural heritage.
	Contain inbuilt intergenerational thinking, ethics, and values that are widely shared by the local community.
	Inherently posses the key principles of relationality and stewardship, which enforce individual and community accountability and responsibility.
Disadvantages	Treat space and time as relational and dynamic, hence they are often misjudged as meaningless and useless.
	Cannot be applied universally or globally because they are context-specific.
	Associated narratives and modes of communication are always metaphorical and too deep for community outsiders' comprehension.
	Barely centralized facts constituting the core of scientific reasoning, which makes it hard to integrate them with the Euro-American academy.
	Largely marginalized, hence barely understood and appreciated in strict scientific discourses.
	Becoming very difficult to reconstruct and access among outsiders because Indigenous people now mistrust researchers.

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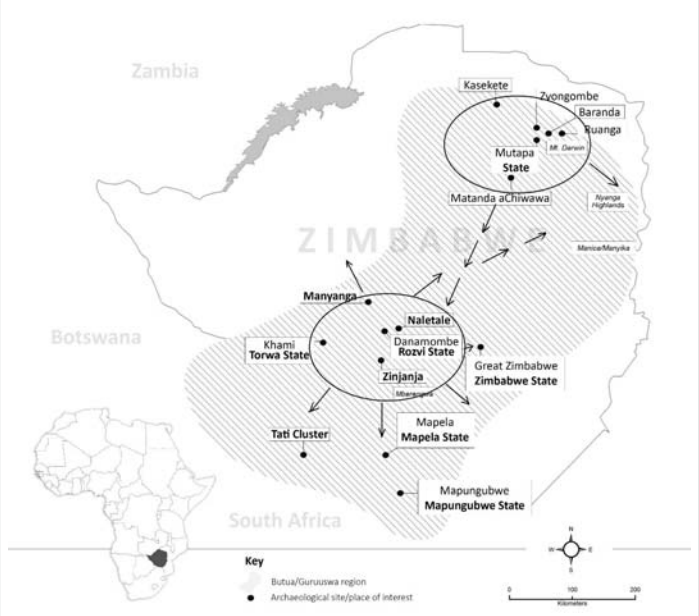

Figure 2: Distribution Map of the Rozvi and other mentioned precolonial states.

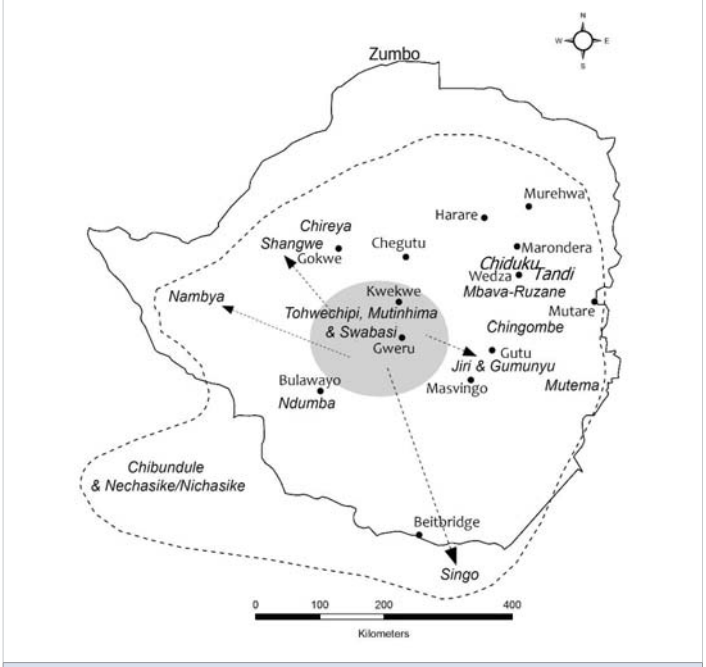

Figure 3: Locational Map of core Rozvi territories and associated expansions.

which generated multiple metaphors connected to a wide range of natural features. Thus, it is crucial to improve our reading and understanding of landscape grammar, meaning(s), and metaphors; otherwise, failure to do so is always to our detriment [28]. Suffice it to say, Rozvi's history presented below is not a digression from the climate change discussion, instead, it only reinforces a contextual setting for Indigenous ontologies. It is anticipated that as one reads through Rozvi origins, expansion, and systems of governance premised on naming patterns, dwelling, and storytelling, an appreciation of narratives as Indigenous 'mental mapping tools' and environmental protection wisdom will come to the fore [23,24,29,33].

For starters, one must appreciate that Rozvi's origins trace back to a great military leader called Changamire Dombolakonachimwango, or simply Dombo, who was once a provincial governor of the Mutapa state. Prior to Changamire Dombo's rebellion from the Mutapa state, the name Rozvi nor people bearing that name were simply nonexistent, meaning this identity was historically constructed. It was the numerous military campaigns waged by this great warrior and his immediate followers between the 1680s and 1690s that eventually culminated in the famous military nickname *varozvi*, meaning the destroyers [16,32,34,35]. This point is worth noting because from around the mid-18th century onwards, several ordinary Indigenous people scattered across the Zimbabwean plateau and beyond initially defined as ordinary Karanga and Kalanga people, among other minority groupings, suddenly claimed to be part of the 'imagined' Rozvi community [35-37]. Once Changamire Dombo was fully established in south-western Zimbabwe, Rozvi identities significantly expanded across landscapes (Figure 3), thereby creating immense scholarly confusion about their 'true' political stature until today [32,34,35]. For long, scholars have been struggling to reconstruct their past due to their subjective ties with several geographical localities [34,35]. This points towards a very sophisticated historical formation that quickly transformed in space through time. Perhaps the secret to this dynamism lies in their comprehensive understanding of the holistic ties between people, culture, language, and nature, as explained below.

The Rozvi simply rode on the power of ancient wisdom to construct, imbue, and objectify their identities in space. Hence, in no time, their claims over anything natural or supernatural were barely challenged by their contemporaries [16,34,35]. For instance, they were wise enough to quickly exploit the land as a repository of memory and weapons to express authority over others. Hence, they often projected their emerging identities as generationally grounded in the land [34,38]. They effectively premised their political authority on the land, exemplified by their famous tradition of instructing newly appointed Rozvi chiefs to hold a handful of soil during the installation ceremony. This cultural practice symbolized that the new chief would be fully responsible for all land affairs, including 'living things' found on it, on behalf of the ancestors, the living, and those yet to be born [34]. During my ethnographic surveys around the district of Bikita in south-eastern Zimbabwe Machiridza [34], I encountered one elderly informant who recited a fascinating poem associated with Rozvi investiture ceremonies in the following manner:

Hodza and Fortune [39] also highlight another version of the

Nhasi takugadze Ushe;	Today we install you as Chief;
Hwekubata ivhu raBambo vako!	To guard the soil of your Fathers!
Muvhu mune zvakawanda,	The soil has a lot of things,
Zvirema, mapofu, mhuka, nyoka, zvese nemakudo;	The crippled, the blind, animals, snakes, and even unruly elements;
Zvese zviri muvhu nhasi ndezvako!	All that is in the soil today belongs to you!
Unobata vanhu nezviri muvhu zvakasikwa naMwari;	You rule your people and all in the soil, which was created by God;
Saka tinokubatisa iri ivhu,	We give you this handful of soil,
Tichipendera nezvinobva muvhu!	We pour on you this traditional beer, which comes from the soil as we thank the soil!

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same Rozvi poem focusing on the tradition of installing chiefs as well as the associated symbolic ties to the land as follows:

Ndini MuRozvi ndimire pano;	I am the Rozvi who stand here;
Uri pamberi pavanhu, ndinoti, Wave'she nhasi;	As you stand before the people, I call you Chief today;
Ndakuturika chiremba chechiremekedzo pamberi pavanhu;	I place on you before the people the symbol of honor;
Takuturura chidawo chako nhasi;	I take off from you your own praise name today;
Ndinopedzisa ndichiti, Heyi tsiva yevhu, ipfumbate maoko ako ose;	Finally, I say, here is a handful of soil, hold it in both hands;
Izvi zvinoratidza nokuonesa kuti uchatonga nokudya pasi.	That shows you will rule the land and eat its fruit.

Perhaps, before proceeding to narrow down the discussion to Rozvi mountain narratives, it suffices to also draw our attention towards yet another interesting quotation highlighting the complex bond between Indigenous people, the land, and associated ecosystems [29]:

> *..., if the land bears 'something', that 'something' will be found in everything growing on that land, trees, grasses, and anything associated with it, like rocks and soil. Natural features like hills, mountains, rivers, and plains, and cultural heritage are a single entity that can only be understood when considered together.*

Considering the discussion above, it is no surprise that the land eventually became an agent of Rozvi identities. Through diverse place-making practices like naming, dwelling, and storytelling, the Rozvi justified themselves as God's first creation with a divine mandate over nature and the supernatural world [16,32,34,35]. Therefore, it was natural that mountains, trees, forests, sacred pools, monumental architecture, and diverse objects became extensions of Rozvi identities through space and time. Although it would have been proper to explore Rozvi narratives woven around all these landscape features, space constraints forbid me to do so. Furthermore, although several Rozvi mountains are now known, only five are targeted for illustrative purposes. Respectively, the chosen sample comprises Manyanga Hill, Mavangwe range, MunwewaMwari Hill, Bepe Hill, and Tikwiri Mountain.

As Alderman [33] explains, naming is a powerful vehicle for promoting identification with the past and locating oneself within networks of memory, so the Rozvi prioritized this cultural practice to fix their identities in places. Usually, when dominant groups name or rename something, they create a material and symbolic order that allows them to impose their meanings. Yi [24] further explains that naming entails taking possession, it is a powerful method of remapping Indigenous geography. Thus, names are never passive elements of speech because naming place is part of claiming space. So, when a place is named, it becomes a trace of the people who named it, and it forever remembers its namers [24,27]. Armed with such wisdom, the Rozvi simply developed their narratives and inscribed them across the Butua/Guruuswa landscapes through naming. It is also important to note that most Rozvi mountains cited above are not ordinary. They were carefully selected through tradition and renamed as part of Rozvi symbols. For instance, Manyanga (Figure 4), situated in Bubi district, with remains of an ancient archaeological monument was both named and occupied by the Rozvi. According to Posselt [40], this hill was physically built by Nerwande a Rozvi royal, who used elephant tusks to make steps rising to the hilltop, so the name Manyanga literally refers to elephant tusks used to mysteriously 'construct' this sacred Rozvi state capital [40]. It is also interesting to note that access to this ancient monument is partly sanctioned by the resident spirit medium who prefers to keep site enviros untouched as a sign of respect for the local spirits.

Another interesting case is the Mavangwe range in Buhera, which is one of the last pre-colonial Rozvi battlegrounds during the 1850s to 1866 that still hosts the grave of the last Rozvi king

Figure 4: View of Manyanga Hill and Monument (Source: Author).

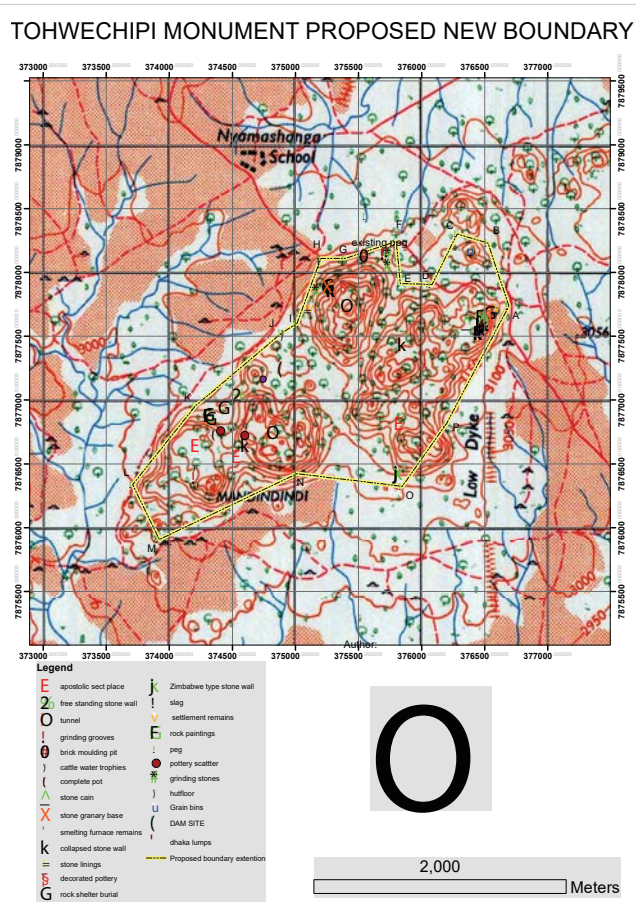

Figure 5: Map showing cultural finds around Mavangwe, MunwewaMwari and Bepe Hills [45].

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called Tohwechipi/Chibhamubhamu (Figures 6,7). Besides this historical grave, recent archaeological surveys around this mountain uncovered diverse cultural finds, possibly relating to the terminal Rozvi era of Ndebele resistance (Figure 5). Along the same mountain range is another hill with a huge boulder pointing to the sky like a finger, so it was named MunwewaMwari meaning (the finger of God). Local tradition has it that the last Rozvi king buried within this mountain range used to climb to the top of this huge boulder with great ease (Rukuni 2023 *pers.comm.*). Of course, one must appreciate that these mountain narratives were only part of claiming space and protecting associated ecosystems through attaching memory, beliefs, and values, proving mountains bear much more than our eyes can see. The Rozvi fully appreciated that mountains were defense fortresses and cultural safes that hid 'rare and precious things' from society, which needed protection through Indigenous conservation practices that emphasized notions of sacredness. Thus, Rozvi mountains continue to be widely perceived as spiritual hubs and ancestral resting places loaded with immense 'sacred blessings' for obedient local communities. Recently, massive lithium deposits were discovered in the Buhera district, including the sacred Bepe (Bhebhe) hill, named after a great former Rozvi army General (Tumbare Bhebhe). Unfortunately, in no time, a Chinese-owned Sabi Star Mining company armed with lithium mining rights started blasting operations around this hill thereby disrupting local cultural heritage and ecosystems (Tohwechipi Chibhamubhamu Foundation File Report 06/12/23). Currently, the local traditional leadership is up in arms against this company, but without relevant government support, the outcome of such disputes is anyone's guess. Thus, by protecting mountains, the Rozvi safeguarded precious resources and ecosystems stretching far beyond for centuries.

Figure 6: Grave of Tohwechipi/Chibhamubhamu in Mavangwe range (Source: Author).

In addition to manipulating naming patterns, the Rozvi also exploited 'dwelling' as part of place-making processes [16]. According to Henry [15], people transform space into place through dwelling, Dasein (signifying human beings as 'there-beings'). This does not necessarily mean that those claiming space have to physically construct something in place to connect with it. Rather they just need to care and cherish the place as an extension of their identities [15,28]. Furthermore, those intending to claim space should be prepared to invest their time there, socially or through erecting permanent structures. Thus, dwelling entails intimately connecting with place through multiple agencies of myth, prayer, honoring ancestors, music, dance, art, and other cultural performances that bond people and place [8,15,28]. Although these cultural practices might appear simple, traditionally Indigenous communities have used their power to transform space into place. No doubt, the Rozvi were masters of this cultural game because they successfully claimed mountains without having to prove their actual role in their 'creation'. Therefore, Rozvi's cultural activities around Manyanga, Mavangwe, MunwewaMwari, and Bepe (Figures 8,9) attest to this power of dwelling in place-making processes. It is also important to caution that not every Rozvi mountain had evidence of ancestral burials, cultural objects, or monumental architecture. Be that as it may, dwelling permanently puts such concerns to rest because finding physical evidence of past existence in a place is not necessarily the only way to validate Indigenous claims of place ownership.

To claim space and imbue their identities, memories, meanings, beliefs, and values, the Rozvi also took advantage of storytelling practices. Usually, manifestations of different modes of Indigenous communication in the form of myths, legends, tales, folklore, proverbs, taboos, poetry, and metaphors, among other narratives, demonstrate that the land, through storytelling, is an active agent of identity and cultural knowledge [24,27,29]. Therefore, stories

Figure 7: A sectional view of the Mavangwe range in the horizon (Source: Author).

Figure 8: MunwewaMwari hill with its peculiar 'finger of God' (Source: Author).

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Figure 9: Bepe hill with sacred cultural material and huge lithium deposits (Source: Author).

Figure 10: The famous Mutikwiri, 'Makono, Ndarikure' mountain (Source: Author).

constitute an important method widely exploited by Indigenous people to possess and reclaim lost territory and assert their existence, history, and intimate connections with the place [27]. Sinamai [29] further argues that Indigenous narratives and stories about place contain intricate knowledge about human-nature interactions, although such information is often concealed in metaphorical expressions. Hershey, et al. [23] also take strains to explain that the Indigenous body of knowledge is highly symbolic and different from Western-centric evidence. Hence, to derive meaning from Indigenous narratives, one must first understand 'the rules of the game' being played by the participants in the oral transmission [23]. Perhaps it is high time that we shifted focus towards yet another prominent, but controversial Rozvi narrative on mount Mutikwiri (Figure 10) near the town of Rusape. A well-advanced Rozvi chief, Mbava (over 100 years old), recalled his memories of Mount Mutikwiri as reported below:

> *Chief Mbava thinks the great chief of the Warozwi, called Togwa, was the one who built Zimbagbwe. He said the word means Palace of the Kings (Dzimbahwe)... Togwa was a very great chief indeed, and all the chiefs went to him in Zimbagbwe to pay homage. It was from this place that his messengers were sent to choose the lesser chiefs-Makoni, Umtasa, Makombi, Zimunya, Marange, Mutema, Nyashanu, Sweswe, Nyandoro, Mashayamombe, and all the chiefs of the country... King Togwa did not build Zimbabgwe only; there are many other places like Zimbabgwe which have never yet been seen by white men... Besides all these places built by the Warozwi, King Togwa sent a great army of people to bring him the great hill Mutikwiri. This hill is in the country of Mawungwe (near Rusape), and he sent his people to bring it and place it near the Palace of the King (Zimbabgwe). Now, therefore, this great army of King Togwa surrounded the hill and dug around it, but failed to move it... [41].*

Later on, the same author provides another refined version of Chief Mbava's narrative on the same mountain as follows:

> *He said the first king was Tumbare. He built his royal town near 'The Nameless Tree', near Marandellas. When he died, his son Munyepere was made king... King Munyepere had a very large army. It was he who told his men of war that he desired them to prepare ladders that should reach up to heaven so that they could catch the moon in order that the king might make it his 'Ndoro' (a round white shell ornament) with which to adorn himself. So, the whole army began to cut trees and to make ladders, and they built and they built, going towards heaven, for two to three years. By and by the ladders began to rot. There were many people building and climbing up the ladders with trees and bark rope, and the ladders broke, and a great multitude fell down and were killed... By and by King Munyepere died and his son Togwa was chosen to be king. It is King Togwa who, people think built Zimbabgwe and tried to dig up Mt. Mutikwiri and Mahwesimike. On the death of Togwa, Chiduku was made king... [41].*

Yet again, Fortune [42] presents another interesting version of the same Mutikwiri mountain in the following manner:

> *...while living at the court they tried to pile up poles saying: "We will take the moon to make a platter for the Mambo." They were killing oxen for making thongs to bind the ladder steps. They spent a year doing these things but afterward, the logs unexpectedly rotted and fell down, and all the people in the sky died... Now it was that after they were wasted in that way, they said: "We go and take the big rock called Makono so that it may be sat on by Mambo." And they dug it putting logs underneath to prise up that huge rock and so it fell and crushed them, and they all died. They left the place saying: "The rock worsted us; let us go to Ndarikure." Having gone to dig again so that they might take it to the court so that it might go and be sat on by Mambo, it thereupon fell again and crushed them and all died.*

In the context of the discussion above, it is quite apparent that narratives are both educational and moral lessons about living in harmony with one another, nature and a whole lot of lifetime solutions to daily problems and challenges [1,4,7,8,11,14,19,20,22,29,31]. In a way, the Rozvi myths highlighted above also symbolize memories of the ancient 'paradisial' days when the earth was much closer

or connected to heaven, and when humankind was at peace with nature [43]. Often, this ancient wisdom is embedded within metaphors, which are usually quite inaccessible to the scientific community [29]. The next section attempts to unpack this wisdom further as part of climate change solutions at both local and global scales.

'Looking back, looking forward': A snapshot on climate change and disaster solutions

As already argued, ecosystems are culturally encoded in the words and grammars of Indigenous languages, which confirms that Indigenous knowledge constitutes a comprehensive method of recording, monitoring, communicating, and learning about relationships among people, plants, animals, landscape features and the entire universe [4]. Thus, as the global community frantically searches for answers to combat climate change and its associated impacts, emerging ideas are slowly coalescing around three main epistemological paradigms that are inspired by reflections on either the past or future. Respectively, the Rozvi case falls within the sustainable self-determination and peoplehood models, which yearns for a return to or revival of past cultural traditions [7,8]. These decolonial models emphasize that most pre-modern or Indigenous communities already have generationally acquired valid knowledge that is well-crafted into local cultural practices to strengthen climate action. Local cultures, including Indigenous languages, technologies, histories, ritual practices, and belief systems are already attuned to maintain a fine balance between humanity and nature. Through a deep spiritual awareness of the interconnectedness of the visible and invisible 'things' of this world, every community member is subjectively empowered through beliefs to think intergenerationally [7]. To further break this down, since foregone ancestors responsibly interacted with their environments and passed on their wisdom to direct descendants as heritage knowledge, even current generations are indebted to future generations in the same manner to perpetuate the ideology of 'being good ancestors'. Hence, the pre-modern logic emphasizes revitalization, revival, and reclamation of traditional practices for self-determination and environmental sustainability.

Put differently, in order to effectively promote human adaption to climate change and avert associated human and natural disasters, there is urgent need for vulnerable Indigenous communities to cultivate and revitalize their past IKS and practices to enhance 'good earth guardianship' [7]. Fortunately, IKS are already inclined towards doing just that, especially considering their inbuilt desirable principles of relationality and stewardship that emphasize the interconnectedness of all living and physical things [6,31]. In line with this, Relph [25] further argues that places of persistent appeal, nostalgia, and personal experience often signify enduring ties between humanity, nature, and the cosmos. Therefore, reviving a sense of place is always key to environmental sustainability. Traditionally, this sense of place has consistently promoted the concordance of social values, technologies, and environmental relations [25]. Therefore, looking back into the past to decolonize or renew 'indigeneity' or Indigenous cultural practices tied to the land is widely seen as one of the best solutions for climate change adaptation [1,4,6,7,8,25]. In this respect, current Rozvi identity revitalization programs that are slowly gathering momentum in pockets of Zimbabwe are welcome developments that restore broken connections between traditional knowledge, spirituality, and the land. This wave of cultural revitalization is also sweeping across Native American communities such as the Pueblo of Western Apache, the Anishinaabe, Ngurrara, and Delgamuukw of Canada as well as the Kuranda people of Australia among others [7,8,15,17,23,24].

Even in the Lawachara National Park of north-eastern Bangladesh, Indigenous knowledge of the Khasia, Tripura, and Garo people has significantly enhanced their resilience against climate change impacts [44]. It is quite regrettable that colonialism severely eradicated original forms of Indigenous sense of place and communalism by imposing external principles of universalism, essentialism, and individualism. Hence, prolonged decades of political, economic, social, and technological assault on Indigenous communities caused permanent cultural damage and institutionalized knowledge that cannot be easily reversed by mere calls for Indigenous cultural revitalization. The colonial legacy is a stubborn reality that continues to profoundly disrupt all forms of Indigenous ties to nature through culture [8,25]. Implicitly, those convinced that changes brought forth by decades of imperialism, colonialism, capitalism, and technological advancements can no longer be reversed have resorted to searching for climate change solutions by focusing on the future. Scientists sharing this vision fall within the modern logic paradigm, which stipulates that society and culture are progressive. Hence, climate change solutions should be sought from creative imaginations premised on future aspirations [2,25]. However, this strict Western scientific and technological approach has tended to silence the voices of Indigenous communities [5]. Unlike the decolonial paradigms prioritized in this paper, this model thrives towards realigning traditional and commercial production processes with environmentally friendly or 'clean' technologies. It emphasizes afforestation, reduction in the use of petrochemical technology, and increased technological advancements towards clean and renewable energy sources as universal climate change and disaster management solutions [2,4]. However, a post-modern logic advocating for a decolonial balanced treatment of Indigenous and Western worldviews when dealing with climate change issues has also emerged in recent years.

This model adopts a middle-ground approach premised on the quest for a genuine epistemological marriage. As Keane, et al. [31] argue, knowledge and cultural manifestations change, but we still need to recognize those underlying beliefs, meanings, and values within ancient wisdom to be able to re-express them creatively in the 21st century. Dei [14] also raises the critical point that rather than continue to rank and treat different knowledge systems as opposing, we should strive for knowledge synthesis because the past influences the present and vice versa. In this respect, IKS is perceived as an equally valid knowledge base capable of addressing various socio-economic and environmental problems [1,7,8,28,19]. In like manner, even though Western science and technology has much to offer, it also has its fair share of limitations, mainly when applied to Indigenous contexts [4,14,18,19,22,23]. Against this background, a decolonial integrated approach (that respectfully engages and exploits both worldviews) in the management of 'environmental commons' is seen as one of the best ways to deal with climate change and associated human and natural disasters.

Despite having this exciting epistemological and methodological option at their disposal, many scholars are still struggling to break free from their 'boxed mentality' [1,3,4,5]. In particular, those operating within the highly compartmentalized Western academy struggle to make sense of the nature of IKS and vice versa. This explains why disputes between international companies intending to exploit local mineral resources and Indigenous communities remain rampant. Given the scenarios above, the following poser remains critical but tricky for many to answer: In what ways can innovative, collaborative, and multi-disciplinary forms of scholarly engagement promote climate action and disaster resilience at local and global scales?

Conclusion

Indeed, the reality of a climatic crisis in the form of pronounced global warming patterns stemming from increasing greenhouse gases and associated environmental effects ranging from loss of biodiversity, decreasing snow and ice sheet covers, rising ocean/sea water and acidification levels, perennial weather hazards, infrastructural damage, loss of human life, health stress, increasing forest fires and a host of other problems exacerbating 'climatic refugees' are manifest for all to see. Given this unsettling global reality, humanity urgently needs to fully understand the context of this crisis before adopting appropriate climate action, which is already long overdue. As argued in this paper, climate change and its associated impacts are an extension of the colonial experience, that continues to cause untold suffering for the poor and marginalized communities of this world as illustrated by references to Indigenous communities in Zimbabwe, Canada, Australia, New Zealand, Bangladesh and parts of South America. Of course, decolonization remains our best epistemological and methodological approach to counter the legacy of colonialism and associated human and natural disasters. Prior to the advent of imperialism and colonialism, most indigenous communities across the world lived in perfect harmony with their environments, thanks to their well-integrated IKS that ensured a sustainable relationship between humankind and nature for generations. Trouble only started when their communal or responsibility-based approach to the environment was disrupted and replaced by an abstract, individualistic, essentialist, universal, and rights-based environmental approach, which sought to exploit natural resources at all costs for selfish personal and company gain. This insatiable appetite for wealth quickly degenerated into overdrive mode and further destabilized the once-balanced human-nature relationship that had prevailed for millennia. The Rozvi-Chinese lithium mining dispute in the Buhera district is a typical example.

Through a close focus on Indigenous Rozvi narratives and mountain ecosystems, this paper has argued that before embarking on a turbulent journey to find climate change and disaster solutions, it is only prudent first to establish the root cause of this global dilemma. Thus, the Rozvi example sought to demonstrate that Indigenous communities have always treated the landscape as their common ancestral home, gift, identity archive, and endangered heritage, while the greedy, external forces perceive it as a mere 'resource' open for exploitation by anyone with the capacity and will. More so, Indigenous narratives are not useless primitive discourse. Instead, they are well-crafted metaphorical stories that cement sustainable connections between humankind and nature. Through narratives, ordinary people, their daily lives, leaders, hopes, beliefs, aspirations, emotions, morals, ethics and goals, production processes, technology, history, the land and resources, and the universe are neatly packaged into a dynamic, usable mental map and community library. In short, Indigenous narratives communicate essential environmental knowledge, lessons about life, risks, and dangers, and general wisdom pertaining to life challenges and solutions. Hence, the human disasters portrayed in Rozvi's narratives highlight the dangers that come along with bad community leadership and poor environmental policies. So, one key takeaway from the Rozvi narratives is that community leaders should always strive to protect nature, their people, and everything else associated with it. Such an approach to power and life is good for all humankind. Finally, we should never forget that there are multiple worldviews, and no worldview is better than the other. Implicitly, instead of promoting exclusionary tendencies, we should strive towards embracing diversity. Perhaps, this way, we might eventually succeed in strengthening climate action and disaster resilience someday in the future.

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